

AMBLER

Health Clinic



Alaska Rural Primary Care Facility

Code and Condition Survey Report

July 23, 2001



I. EXECUTIVE SUMMARY

Overview

The Ambler Clinic is a prototype clinic similar to many others in the Kotzebue region. The clinic is reported to be about 21 years old and has deteriorated due to inadequate maintenance and heavy use. The recent addition to the building was intended to relieve crowding, however, most of the clinic functions were simply moved into new space without major renovations of the existing facility. One of the back exam rooms is the primary exam room used by visiting physicians. The other rooms are used for routine visits. The lack of adequate space for medical supplies and the lack of a trauma room prevent the staff from providing the level of care needed on a daily and emergency basis.

Renovation and Addition

The existing clinic with the addition is 1476 s.f. and would require an addition of 524 s.f. to meet the 2000 s.f. minimum area recommended for a medium clinic by the Alaska Rural Primary Care Facility study. The floor plan layout would require the remodel of approximately 75% of the interior space. Additionally, the poor condition of the building will require extensive upgrades to improve the foundation, thermal enclosure and other building systems. The cost of required renovations and code upgrades, combined with the cost of a new addition, equal 120% of the cost of a new clinic.

New Clinic

Because the cost of renovation and addition is more than 75% of the cost of new construction, a new clinic of at least 2000 s.f. should be built to replace the existing clinic. A site nearer to other community buildings has been selected for the clinic, which has good access to site utilities.

II. GENERAL INFORMATION

A. The Purpose of the Report

ANTHC has entered into a cooperative agreement with the Denali Commission to provide management of the small clinic program under the Alaska Rural Primary Care Facility (ARPCF) assessment, planning, design, and construction. The purpose of the Code and Condition Survey Report is to validate the data provided by the community in the Alaska Rural Primary Care Facility Needs Assessment and to provide each community with a uniform standard of evaluation for comparison with other communities to determine the relative need among the communities of Alaska for funding assistance for the construction of new or remodeled clinic facilities. The information gathered will be tabulated and analyzed according to a set of fixed criteria that will yield a priority list for funding. Additionally, the relative costs of new construction vs. remodel/addition will be evaluated to determine the most practical and cost effective means to bring the clinics up to a uniform standard of program and construction quality. The information provided in this report is one component of the scoring for the small clinic RFP that the Denali Commission sent to communities in priority Groups 1 and 2.

B. The Assessment Team

The survey was conducted on May 24, 2001. John Crittenden, AIA, Architects Alaska, and Bill Henriksen, PE, RSA Engineering, completed the field inspection for this project. Mark Anderson of ANTHC and Jim Howell of Maniilaq Association were the team escorts. Mark reviewed alternative site locations with village leaders. Jim is an Environmental Health Specialist for the region and this trip accounted for one of his scheduled community visits. Both Mark and Jim knew the village contacts personally and made introductions and conducted the village briefings. Team members who assisted in the preparation of the report included Stephen Schwicht and Ian VanBlankenstein of NANA/DOWL, project managers for the survey team, and Jay Lavoie of Estimations, Inc.

C. The Site Investigation

The format adopted is similar to the “Deep Look”, a facility investigation and condition report used by both ANTHC and the Public Health Service, in maintaining an ongoing database of facilities throughout the country. Facilities are evaluated with respect to the requirements of the governing building codes and design guidelines. Building code compliance, general facility condition, and program needs have been evaluated. This written report includes a floor plan of the clinic and a site plan indicating the existing clinic site. Additional information gathered during the site investigation that is referred to in the report, which includes sketches of building construction details, a building condition checklist, and proposed plans for village utility upgrades, are not included with this report. This information is available for viewing at ANTHC’s Anchorage offices and will be held for reference.

III. CLINIC INSPECTION SUMMARY

A. Community Information

The community of Ambler has a current population of 138 as published in the 2000 U.S. Census. It is located 75 miles southeast of Kotzebue in the Kotzebue Recording District. It is a part of the NANA Regional Corporation. Refer to the attached Alaska Community Database prepared by the Alaska Department of Community and Economic Development in Appendix C for additional community information.

B. General Clinic Information

The Ambler Clinic was constructed in 1980. It is a prototypical design replicated in at least four other villages surveyed. Some of these clinics have been remodeled and improved. The old portion of the Ambler Clinic is nearly the same plan as originally constructed. This building is approximately 32' x 24' in size and is constructed of conventional frame walls, floor, and roof. It has a 28' x 24' addition to the back. It has about half the insulation that would be put into a building constructed today. This interior is lined with wood paneling. The building interior is in poor condition, probably not having been painted or renovated, and the exterior needs to be re-caulked and painted. It has an area of 1476 s.f. which makes it 524 s.f. less than the ARPCF minimum of 2000 s.f. for a medium sized clinic.

C. Program Deficiency Narrative

The clinic is arranged to maximize exam space incorporating three exam rooms, a kitchen and storage space. Again, similar to other clinics, the addition is not very well utilized. Two of the exam rooms are located in the addition; one is very well equipped and is the main exam room with most equipment located nearby and good supplies at hand. This room serves trauma patients whose condition allows them to be seen in that room. The large space outside the exam rooms must be used in severe cases. This space is, however, quite inaccessible as the side door leading to it has a very low and narrow vestibule attached to it, which severely limits access. The route through the clinic requires negotiating the long corridor and multiple interior doors, as well as the very narrow main vestibule. One advantage in the layout for this clinic is the concentration of medications and lab supplies in the kitchen where they can be observed and controlled from the main administration work area across the hall.

The following table illustrates a comparison between the current actual square footage and the ARPCF recommended 2000 s.f. for a Medium Clinic.

Table 1 – ARPCF Clinic Area Comparison

Purpose/Activity	#	Actual Net SF	#	ARPCF SF	Difference
Arctic Entry	1	19	2 @	50=100	81
Wait/Recep/Closet	1	100		150	50
Trauma/Telemed/Exam	1	135		200	65
Office/Exam	2	112		150	38
Admin./Records	2	150		110	-40
Pharmacy/Lab	1	110		80	-30
Portable X-ray	-	-		-	-
Spec. Clinic/Health Ed./Conf.	-	-		150	150
Patient Holding/Sleep Room	-	-		80	80
Storage		200		100	-100
HC toilet		36	2 @	60=120	84
Janitorial Closet		14		30	16
Total Net Area				1270	
Mechanical Room	-	-		147	147
Morgue	-	-		30	30

The Ambler Clinic has a current gross building area of 1476 s.f. This would require an expansion of approximately 524 s.f. in order to meet the 2000 s.f minimum requirements for the Medium Clinic.

An analysis of the existing building's program functions follows. Please also refer to the floor plan in Section H.

- **Arctic Entries:** The front door has an arctic entry which is nominally 4' x 5'. This is inadequate to accommodate a stretcher. The back door opens to a very narrow cold enclosure, which has insufficient headroom causing difficulties for access by stretchers.
- **Waiting:** A waiting area of about 100 s.f. accommodates about 6-8 persons. It is well located to maintain separation from clinic activities. It is a relatively small area and would not accommodate a larger family group.
- **Trauma/Telemed/Exam:** The trauma/exam room measures 11' x 12'. This room cannot be used in most major trauma cases as it contains all the specialized diagnostic and telemed equipment kept at the clinic. It works best as a diagnostic treatment room.

- **Office/Exam:** This clinic has two additional exam rooms that are not used for offices, providing a total of three rooms usable for patient visits (including the trauma/exam). This appears to be an adequate number, however, only one room is well equipped with good casework, sink counters and equipment.
- **Administration/Records:** The administration area is not well organized or functional. The reception area is cramped, without sufficient room for computer and general work surfaces. Other administration area is casually placed in a large open area in the core of the addition.
- **Pharmacy/Lab:** Directly opposite the small reception counter is the med/lab space. It also serves as a kitchen/break room. It has a sink, stove, refrigerator, work counter and a lunch table. The combined lunch/med functions are not a good health practice.
- **Specialty Clinics:** Specialty clinics can make use of one of the exam rooms and some of the “undesigned” space in the core of the addition. There is not a designated sleep room in the clinic.
- **Patient Holding/Sleep:** None provided in the clinic.
- **Storage:** What storage there is in contained in a number of 36” wide tall enclosed cabinets located in various places. There are two small storage areas that are difficult to use because of their narrow width.
- **HC Toilet Room:** The toilet room, which contains a bathtub, is undersized for handicapped access.
- **Janitor Closet:** The area used for a janitor mop bucket storage is in a niche off the central corridor and is open to the corridor. This is not a sanitary condition.
- **Ancillary Spaces:** The plan has an awkward layout that incorporates a large central open space in the addition that does not have a clear designated use. A remodel could make better use of the space that exists.

D. Architectural/Structural Condition

This building is in very poor shape, interior and exterior. The flooring is failing and there is no flooring in the boiler room. The boiler room actually separates the older building from the newer one. Consequently, leaving these doors open causes fumes to come into the clinic. The interior walls are not constructed full height causing acoustical and privacy concerns. The interior badly needs new painting. The vestibule off the addition should be removed and constructed with a new gable and proper landing. The entire building sits too close to the ground and beams are in contact with the ground in some locations and there is earth backfill along part of one wall.

The building needs thermal upgrades to the walls, roof and to the floor soffit area.

E. Site Considerations

The building site seems fairly accessible to the community and to the airstrip, however, it does not seem to be part of any community cluster of buildings or really related to the community. A site should be selected which provides good access to utilities and relates well to other community facilities.

Site utilities include village water, sewer, power, and telephone service directly to the building.

F. Mechanical Conditions

Heating and Fuel Oil: A Burnham Model V-1 6A-T boiler is installed in the building. Heating is provided from hydronic baseboard with one zone to the original section of the building and the other zone to the addition. Two zones of temperature control for the facility is minimal. Rooms that do not have a thermostat are subject to large temperature variations unless their doors remain open. This is especially a problem for rooms that have privacy or security issues. In addition to the minimal zoning, the condition of the baseboard in the building is poor and much of it should be replaced. A Toyostove located in kitchen area of the clinic that serves as a back-up heater in the event of a boiler failure. A number of code and maintenance issues concerning the boiler and boiler room were identified while on site. They are described in detail in the Deficiency Evaluation and Cost Assessment forms. Fuel for the boiler is provided from a tank located and the Toyostove is provided from two fuel tanks, the tank for the boiler is located in a locked plywood addition to the building adjacent to the boiler room. A 55-gallon fuel tank serves the Toyostove. Both tanks need to be replaced with tanks that are UL listed, properly supported, properly piped, and vented and that have the required clearance from the building

Ventilation: There is no ventilation serving the building except operable windows and an exhaust fan in the restroom. The restroom exhaust fan is a pull chain style fan that mounts directly in the outside wall. It was operable but is not an ideal fan to serve in the type of climate in which it has been installed.

Plumbing: Cold water is provided into the clinic from the village water supply and hot water is generated from an electric water heater. A gravity waste line connects from the building into the village sewer system. The clinic has experienced frequent cold weather sewer service line back-ups in recent years. If the existing clinic is upgraded, the sewer service line should be upgraded to improve its reliability during winter months. Plumbing fixtures in the building include a toilet, lavatory and bathtub/shower combination in the restroom a single compartment sink for each of the dental exam room and the kitchen/break room. The fixtures in the restroom do not meet ADA requirements. The lavatory in the restroom is fitted with hose threads for filling the mop bucket. This is a code and health problem since the system is not protected with a vacuum breaker and cross contamination can occur. All fixtures appeared to be plumbed and

vented correctly but the overall condition of the fixtures and piping system was only fair to poor. Their replacement is recommended.

G. Electrical Condition

Power: 120/240-volt single-phase power is provided to the clinic from an underground service. A 100-amp is provided after the meter and a 125-amp panel is provided in the building. The service is feed with copper conductors, and appears to be properly grounded from the meter down to a grounding rod. The panel installation is acceptable except for an open knock-out that needs to be filled. All 12 breakers installed in the panel were used, but there is capacity for a total of 24. Wiring from the panel has been done in Romex with copper conductors. The numbers of receptacles inside the building are appropriate, no plug strips were observed. The receptacles serving the restroom and near the sink in the exam room and kitchen area are not GFC protected. There was one weatherproof receptacle located on the outside of the building near the electrical service entrance to the building. It was not GFI protected.

Lighting and Emergency Fixtures: Florescent fixtures with four 4-ft. 35 watt 40F lamps or 8-ft two lamp fixtures in the old section of the building provide interior lighting in the building. All fixtures were surface mounted. None of the 8 ft. fixtures had covers. The lighting levels were not measured but they did appeared low. The lighting levels were not acceptable in the boiler room and the storage area opposite the boiler room. Exterior lighting was provided with incandescent fixtures at the entrances only. The fixtures were in poor condition with most of the covers missing over the bulbs. All exterior lighting needs to be replaced. There were no emergency light fixtures in the building nor were there any exit signs or smoke detectors.

Telecommunications: Three phone lines serve the building, one for the local incoming line, one for a fax line and a dedicated line for communication with the Kotzebue Hospital. A Telemed system was also recently installed.

H. Existing Facility Floor Plan

See following sheet for the floor plan of the existing clinic.

J. Community Plan

Refer to the attached community plan for location of the existing clinic and the proposed location for the new clinic. If the existing clinic site is the preferred location or if a new site has not yet been selected, only the existing clinic location will be shown.

IV. DEFICIENCY EVALUATION AND COST ASSESSMENT

The attached deficiency reporting forms are based on Public Health Service form AK H SA-43. The forms are numbered sequentially for each discipline starting with **A01** for Architectural and structural deficiencies, **M01** for Mechanical deficiencies and **E01** for Electrical deficiencies.

A. Deficiency Codes

Deficiencies are further categorized according to the following PHS Deficiency codes to allow the work to be prioritized for federal funding, should that apply. Deficiency codes used in this survey include:

- 02 Fire and Life Safety:** These deficiencies identify areas where the facility is not constructed or maintained in compliance with provisions of the state mandated building codes including the International Building Code, The Uniform Fire Code, NFPA 101, The Uniform Mechanical and Plumbing Codes and The National Electrical Code.
- 03 Safety:** These deficiencies identify miscellaneous safety issues.
- 04 Environmental Quality:** This addresses DEC regulations, hazardous materials and general sanitation.
- 05 Program Deficiencies:** These are deficiencies which show up as variations from space guidelines established in the Alaska Primary Care Facility Facility Needs Assessment Project and as further evaluated through observation at the facility site and documented in the facility floor plans.
- 07 Disability Access Deficiencies:** The items with this category listing are not in compliance with the Americans with Disabilities Act.
- 08 Energy Management:** These deficiencies address the efficiency of heating systems/fuel types and the thermal enclosures of buildings.
- 11 Structural Deficiencies:** These are deficiencies with the fabric of the building. It may include the foundations, the roof or wall structure, the materials used, the insulation and vapor retarders, the attic or crawl space ventilation and the general condition of interior finishes. Foundation systems are included in this category.
- 12 Mechanical Deficiencies:** These are deficiencies in the plumbing, heating, ventilating, air conditioning, or medical air systems.
- 13 Electrical Deficiencies:** These are deficiencies with electrical generating and distribution systems, fire alarm systems and communications systems.
- 14 Utilities:** This category is used for site utilities, as opposed to those within the building and may include sewer lines and water and power distribution.

B. Photographs

Each sheet has space for a photograph. Some deficiencies do not have photos. Photographs do not cover all areas where the deficiencies occur but are intended to provide a visual reference to persons viewing the report who are not familiar with the facility. Additional photographs of the clinic and the surrounding area are included in Appendix B.

C. Cost Estimate General Provisions

New Clinic Construction

- **Base Cost**

The Base Cost provided in Section VI of this report is the direct cost of construction, inclusive of general requirements (described below) and contingency for design unknowns (an estimating contingency) The base cost is exclusive of overhead and profit, mark-ups, area cost factors and contingencies. Material costs for the project are all calculated FOB Anchorage and labor rates are based on Davis Bacon wages, regionally adjusted to Anchorage. Transportation costs, freight, Per Diem and similar costs are included in the base costs. The Project Factors and Area Cost Factor are multipliers of the base costs.

General Requirements are based on Anchorage costs without area adjustment. It is included in the Base Cost for New Clinics. These costs are indirect construction cost not specifically identifiable to individual line items. It consists of supervision, materials control, submittals and coordination, etc. The general requirements factor has not been adjusted for Indian Preference.

The Design Unknowns Contingency is an estimator's contingency based on the schematic nature of the information provided, the lack of any real design, and the assumption that any project will encompass related work not specifically mentioned.

- **Project Cost Factors**

Equipment Costs for new medical equipment has been added at 17% of the cost of new floor space.

Design Services is included at 10% to cover professional services including engineering and design.

Construction Contingency is included at 10% of the Base Costs to cover changes encountered during construction.

Construction Administration has been included at 8% of the Base Costs. This is for monitoring and administration of the construction contract.

- **Area Cost Factor**

The Area Cost Factor used in the cost estimates for this facility is shown in Section VI of this report. The area cost factors are taken from a recent study completed for the Denali Commission for statewide healthcare facilities. The numbers are the result of a matrix of cost variables including such items as air travel, local hire costs, room and board, freight, fire protection equipment, foundation requirements, and heating equipment as well as contractor costs such as mobilization, demobilization, overhead, profit, bonds and insurance. These parameters were reconsidered for each village, following the site visit, and were modified, if necessary.

- **Estimated Total Project Cost of New Building**

This is the total estimated cost of the project, including design services. The construction contract will be work subject to Davis Bacon wages, and assumes construction before year-end 2001. No inflation factor has been applied to this data.

Remodel, Renovations, and Additions

- **Base Cost**

The Base Cost provided in the specific deficiency sheets is the direct cost of construction, exclusive of overhead and profit, mark-ups, area cost factors and contingencies. Material costs for the project are all calculated FOB Anchorage and labor rates are based on Davis Bacon wages, regionally adjusted to Anchorage. Most of the deficiency items do not constitute projects of sufficient size to obtain efficiency of scale. The estimate assumes that the projects are completed either individually, or combined with other similar projects of like scope. The numbers include moderate allowances for difficulties encountered in working in occupied spaces and are based on remodeling rather than on new construction costs. Transportation costs, freight, Per Diem and similar costs are included in the base costs. The General Requirements, Design Contingency and Area Cost Factors are multipliers of the base costs.

The cost of Additions to clinics is estimated at a unit cost higher than New clinics due to the complexities of tying into the existing structures.

Medical equipment is calculated at 17% of Base Cost for additions of new space only and is included as a line item in the estimate of base costs.

- **General Requirements Factor**

General Requirements Factor is based on Anchorage costs without area adjustment. The factor is 1.20. It is multiplied by the Base Cost to get the project cost, exclusive of planning, architecture, engineering and administrative costs. This factor assumes projects include multiple deficiencies, which are then consolidated into single projects for economies of scale. The general requirements factor has not been adjusted for Indian Preference.

- **Area Cost Factor**

The Area Cost Factor used in the cost estimates for this facility is shown in Section VI of this report. The area cost factors are taken from a recent study completed for the Denali Commission for statewide healthcare facilities. The numbers are the result of a matrix of cost variables including such items as air travel, local hire costs, room and board, freight, fire protection equipment, foundation requirements, and heating equipment as well as contractor costs such as mobilization, demobilization, overhead, profit, bonds and insurance. These parameters were reconsidered for each village, following the site visit, and were modified, if necessary.

- **Contingency for Design Unknowns (Estimating Contingency)**

The Design Unknowns Contingency is an estimator's contingency based on the schematic nature of the information provided, the lack of any real design, and the assumption that any project will encompass related work not specifically mentioned. The factor used is 1.15.

- **Estimated Total Cost**

This is the total estimated bid cost for work completed under Davis Bacon wage contracts, assuming construction before year-end 2001. This is the number that is entered in the front of the deficiency form. No inflation factor has been applied to this data.

- **Project Cost Factors**

Similar to new clinics, the following project factors have been included in Section VI of this report.

Design Services is included at 10% to cover professional services including engineering and design.

Construction Contingency is included at 10% of the Base Costs to cover changes encountered during construction.

Construction Administration has been included at 8% of the Base Costs. This is for monitoring and administration of the construction contract.

- **Estimated Total Project Cost of Remodel/Addition**

This is the total estimated cost of the project including design services, the construction contract cost for work completed under Davis Bacon wages and assuming construction before year-end 2001. No inflation factor has been applied to this data.

V. SUMMARY OF EXISTING CLINIC DEFICIENCIES

The attached table summarizes the deficiencies at the clinic and provides a cost estimate to accomplish the proposed modifications. If all deficiencies were to be addressed in a single construction project there would be cost savings that are not reflected in this tabulation. The total cost of remodel/addition shown in Section VI is intended to show an overall remodel cost that reflects this economy. Refer to Section VI for a comparison of remodel/addition costs to the cost of new construction. The specific deficiency sheets are included in Appendix A.

VI. NEW CLINIC ANALYSIS

The decision on whether to fund new clinic construction or a remodel/addition of the existing clinic is to be determined by comparing the cost of a new facility designed to meet the program requirements of the Alaska Rural Primary Care Facilities minimum area requirements with the projected combined cost of renovating, remodeling and adding onto the existing building to provide an equivalent facility. If the cost of the remodel/addition project is greater than 75% of the cost of constructing an altogether new facility then a new facility is recommended. That ratio is computed as follows:

- **The cost of a new clinic in Ambler is projected to be:**

Base Anchorage Cost per s.f.	\$183/ s.f.
Medical Equipment Costs @ 17%	\$31
Design Services 10%	\$18
Construction Contingency 10%	\$18
Construction Administration. 8%	\$15
Sub-total	\$265/ s.f.
Area Cost Factor for Ambler 1.62*	
Adjusted Cost per s.f.	\$428/ s.f.

Total Project Cost of NEW BUILDING 2,000 x \$428 = \$856,000

- **The cost of a Remodel/Renovation/Addition is projected to be:**

Projected cost of code/condition renovations (From the deficiency summary)	
90% of cost of code/condition improvement**	\$403,778 Renovation
Projected cost of remodeling work (See A15)	
1,476 s.f. clinic @ 75% remodel = 1,107 s.f.	\$147,513 Remodel
Projected cost of building addition (See A14)	
2,000 s.f. – 1,476 s.f. = 524 s.f.	\$253,785 Addition
<input type="checkbox"/> Design 10%, Const. Contingency 10%, Const. Admin. 8%	\$225,421

Total Project Cost of REMODEL ADDITION \$1,030,497

- **Ratio of remodel:new is \$1,030,497 : \$856,000 = 1.20X**

The cost of a remodel/addition for this clinic would cost 120% the cost of a new clinic, therefore, a new clinic is recommended for this community.

* The Area Cost Factor was refined by Estimations, Inc. in July 2001 based on information obtained during the site visit.

** The 90% factor represents economy of scale by completing all renovation work in the same project.

Appendix A: SPECIFIC DEFICIENCIES LISTING

Refer to the attached sheets for the listing of the individual deficiencies and the corrective action recommended.

Appendix B: GENERAL SITE PHOTOGRAPHS

The following sheets provide additional photographic documentation of the existing building and surroundings.

Appendix C: ADCED Community Profile

Refer to the attached document prepared by Alaska Department of Community and Economic Development profiling the community of Ambler.

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